PHENIX

Technical Support 2006

PHENIX
WEEKLY PLANNING

10/26/06

Don Lynch

PHENIX Shutdown Overview

PHENIX

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Task_Name	Start_Date	Finish_Date
PHENIX Shutdown '06	5/1/2006	12/1/2006
Pre Shutdown Tasks	5/1/2006	DONE
End of Run 6	6/27/2006	DONE
Shutdown Preparations	6/27/2006	DONE
Detector Upgrades	7/19/2006	11/30/2006
Planned electrical power outage	7/24/2006	DONE
Subsystem maint/repair tasks	7/19/2006	10/31/2006
Building and infrastructure tasks	5/1/2006	10/31/2006
E carriage roll in & setup	10/30/2006	11/17/2006
RHIC Cooldown Begins	12/1/2006	12/1/2006
Start Flammable Gas/Watch Shifts	12/5/2006	12/5/2006
Run Prep	11/20/2006	12/31/2006
Shutdown Concluded Start Physics Run	1/1/2007	1/1/2007

TOF West

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Ready for Commissioning

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RXNP

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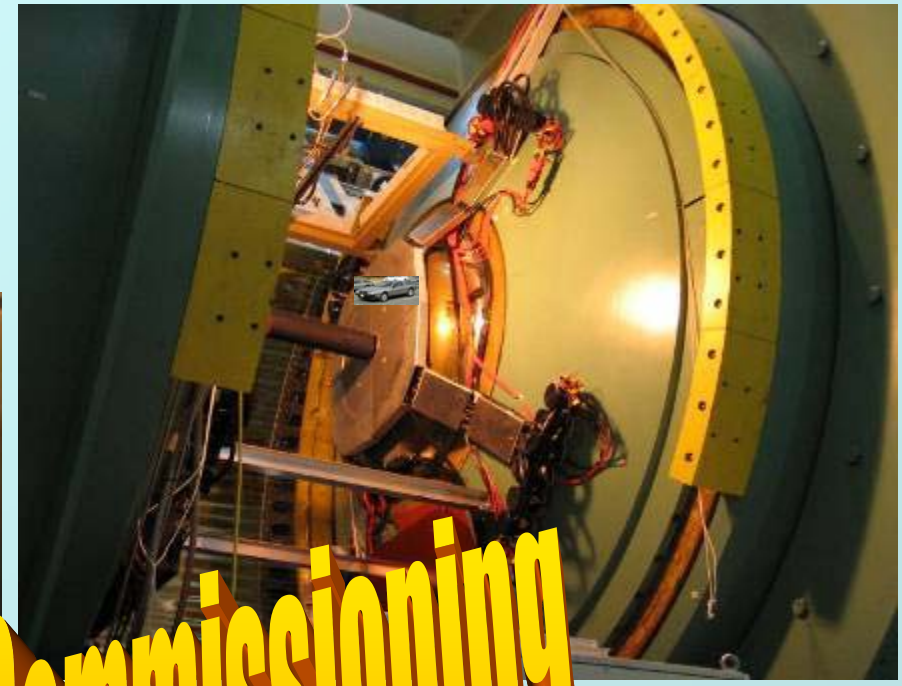
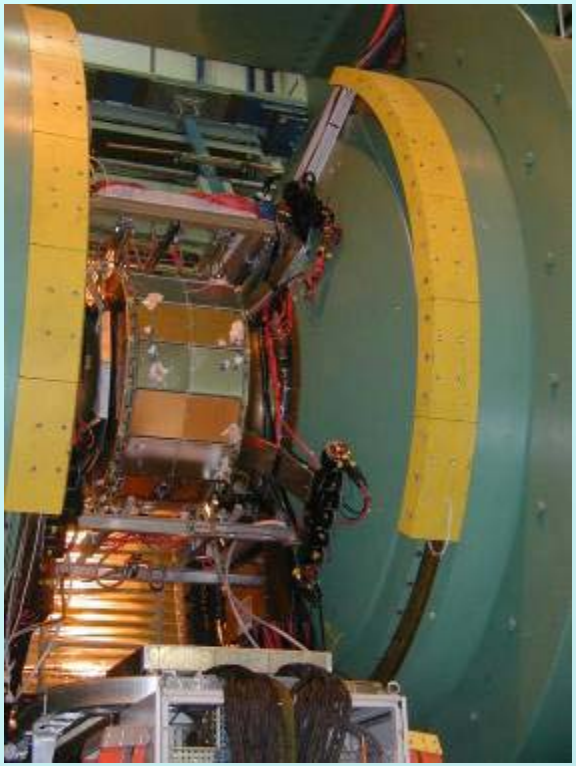


Ready for Commissioning

HBD

- HBD East survey Done
- Bakeout heaters ready on
- Cooling systems to be installed
- Gas Hutch renovation ongoing
- Gas flow control racks nearly ready



Flux Capacitor

HBD (Hadron Blow Drier)

Electronics Cooling

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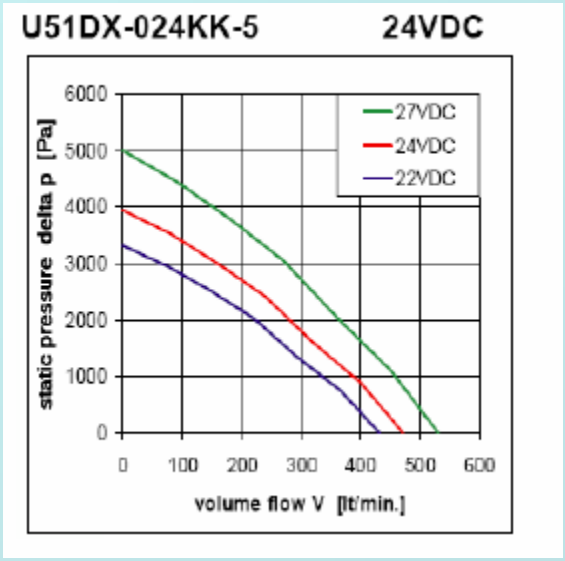
Still Needed for Approval to Operate:

- Where will fan(s) be mounted? – CM base "cubby hole" fan model and specs to be forwarded to Safety
- Written design and operation description and– To be forwarded to Safety
- Order for 5 blowers & drivers (4 +1 spare) is in the works

Order delayed Again ! ?



Blower requirements:

5 cfm (142 l/min)

@ 5 in WC (1245 Pa)

HBD "EBO" Heaters

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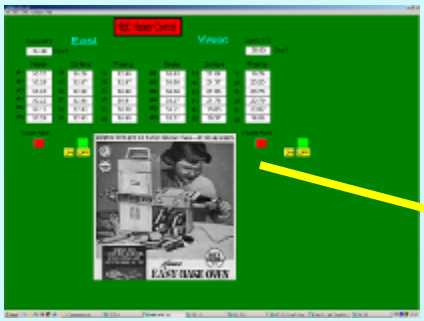
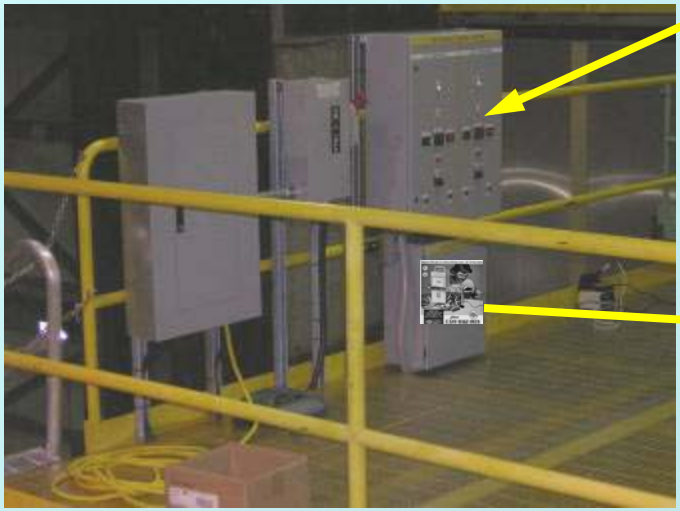
Initial Start up complete !!





HBD Signal Rack

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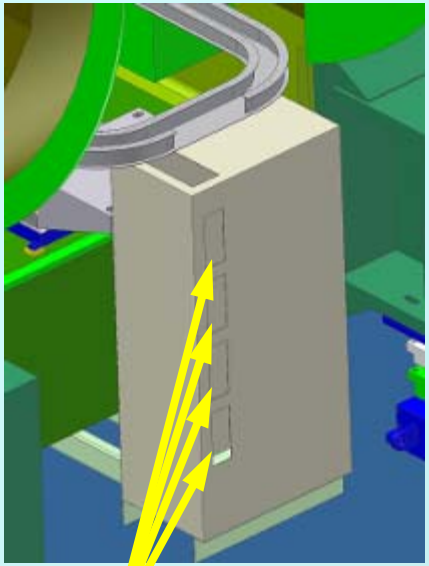
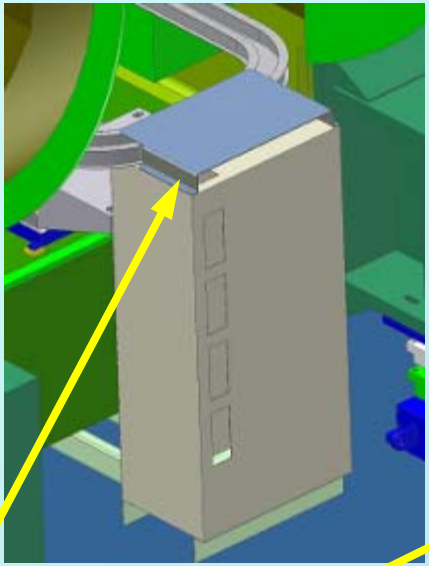
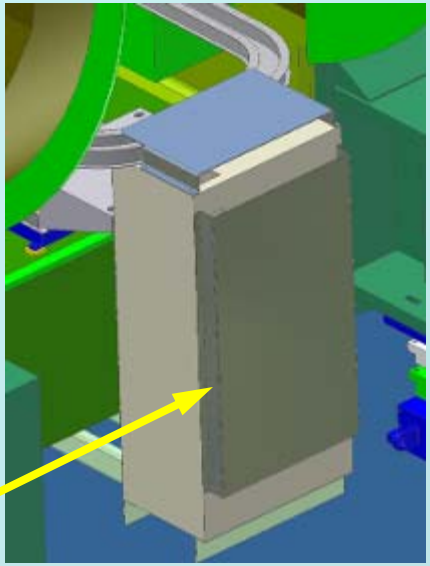




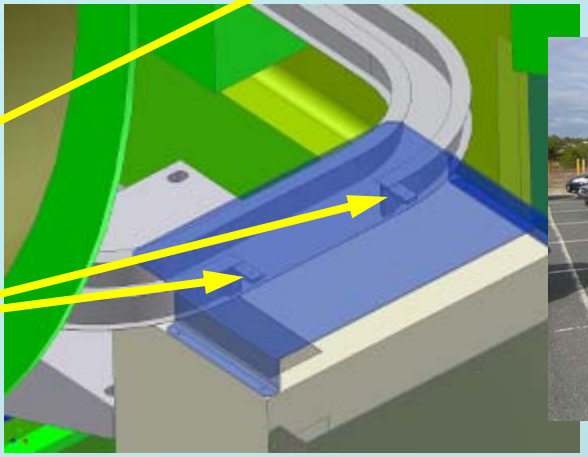


Cutouts Done

Cable Cover waiting for material

"Chimney" Done

Mounting Brackets Done



MPC North

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CM moved to run position…no more access to the crystals until Shutdown 2007

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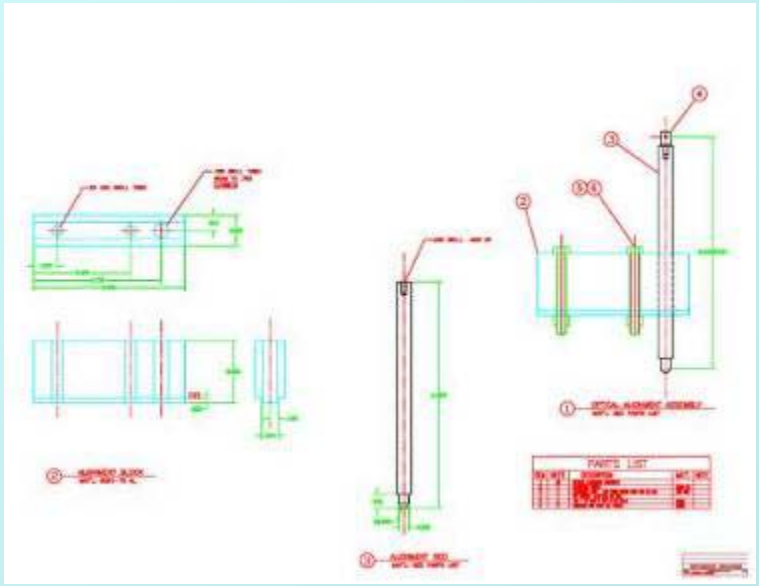
Subsystem Maintenance & Repairs

- PC HV module/cable maintenance in progress
- TEC upgrades in progress
- MuID survey ~in progress
- MuID commissioning-> After flammable gas is on



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Remaining Schedule

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	Start	Complete
TOF West		
Commissioning	in progress	10/31/06
RXNP		
Commissioning	in progress	10/31/06
HBD		
Electrical cables, rack integration: water & power	in progress	10/31/06
Gas Plumbing	in progress	10/31/06
East mechanical installation (incl. final survey)	Done	Done
East cable trays	10/20/06	10/27/06
HBD preamp cooling system	9/5/06	11/1/06
HBD drying heater system	Done	Done
Commissioning	9/25/06	11/30/06

Remaining Schedule (cont'd)

Technical Support 2006

	Start	Complete
MPC North		
Mechanical installation	Done	Done
Electrical, modify/upgrade rack	Done	Done
Commissioning	10/12/06	10/31/06
PC HV module and cable maintenance	in progress	10/31/06
TEC maintenance & Repairs	in progress	10/31/06
MuID survey	10/20/06	11/30/06
MuID commissioning	11/22/06	11/29/06
Build Flux Capacitor		

Infrastructure Work

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CAD/RHIC PHENIX infrastucture related mechanical and electrical support	
Roof leak repairs	*?*
MuID survey	*?*
EMCal Survey	*?*
1008-wide Door latch repairs for security	*?*
Counting House Floor cleaning	***Requested***
Mixing house ramp sand painting	***requested***
EC and Shield wall C-A support	***10/30-12/1/2006***

Remaining Schedule (cont'd)

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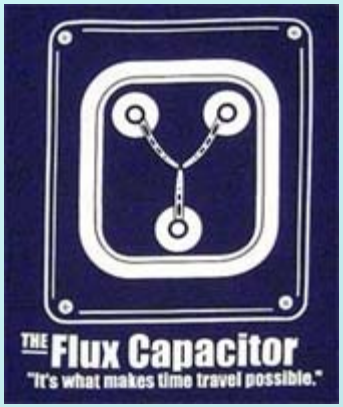
	Start	Complete
East carriage roll in & setup		
Prepare IR & EC for move to IR/move cart, manlifts, collars	23-Oct	31-Oct
EC Roll in	1-Nov	3-Nov
Connect EC services	6-Nov	10-Nov
Install EC Ladder	13-Nov	14-Nov
Install EC rear access & ext.	15-Nov	17-Nov
Move MMS full North/Install beam pipe collar	20-Nov	22-Nov
Rebuild Rolling door	27-Nov	30-Nov
Close rolling door	30-Nov	30-Nov
RHIC Cooldown Begins	1-Dec	1-Dec
Pink Sheeting & Blue Sheeting	13-Nov	1-Dec
Start Flammable Gas Flow	5-Dec	18-Dec
All Up Commissioning	5-Dec	18-Dec
Beam in yellow ring	18-Dec	18-Dec
Beam in blue ring	25-Jan	25-Jan
RHIC beam conditioning	25-Jan	31-Dec
Shutdown Concluded/Start of Physics Run	1-Jan	1-Jan

SEU Test
John Lajoie Iowa State



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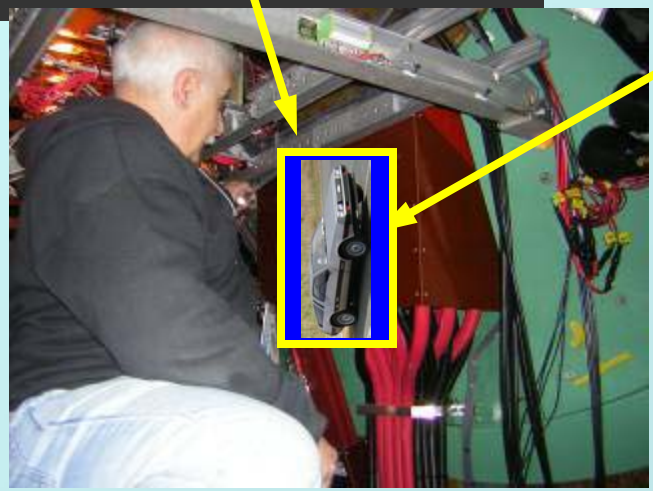
Experimental Impact Statement

- The box dimensions are: 17" x 10" x 3.5".
- The only services required by the box in order to function are AC power and a Cat5 cable connected to the USB interface.
- The FPGA devices will be programmed and monitored over an external USB connection, which is run over a USB -> Cat5 extender box. This extender has a maximum range of 150 feet of Cat5 cable, which should be sufficient to reach from the PHENIX IR to the rack room, where it will connect to a laptop containing the analysis and configuration software. (The laptop will require network access, and will comply fully with all BNL cybersecurity requirements.)
- Because SEU events are relatively rare, it would be best to expose the apparatus to as high a particle flux as possible. However, the box represents a substantial amount of material and it would be unacceptable to place the box within the acceptance of the central arms. Placement within one of the muon arms, near or on the central magnet pole, would be optimal.

SEU Test
John Lajoie Iowa State



Current proposed location for test box. To be oriented with long side of box perpendicular to ebeam orbit direction (z).

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Next Week

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- HBD, TOF W, RXNP, MPC N electronics commissioning
- MuID survey ?
- HBD signal rack chimney
- HBD & TOF W mixing house gas control systems
- TEC repairs
- PC HV work

- **When do we roll in the EC ?**
- **Then:**

Where To Find PHENIX Technical Info

Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm